SP-L4 Aesthetics

December 11, 2001

1.0 Introduction/Background

An evaluation of the effect of project features and operations on aesthetic resources is required as part of the Federal Energy Regulatory Commission's (FERC's) relicensing process. In addition, the Land Use Work Group has identified several issues related to aesthetic quality which need to be addressed. This study will be conducted to meet both the FERC requirements and the aesthetic issues identified by the work group.

2.0 Study Objective

The objective of this study is to inventory and characterize the existing influence of project features and operations on the aesthetic quality of the Study Area. For the purposes of this study, aesthetic resources are considered primarily in terms of visual resources, but also include noise and odor concerns.

The study will also assess the level of contrast or compatibility of the existing project with its aesthetic setting and will evaluate the degree to which proposed enhancement measures would improve (or not improve) the aesthetic quality of the Study Area.

Finally, the study will examine the consistency among aesthetic elements of the project and aesthetic elements of relevant comprehensive and/or management plans.

3.0 Relationship to Relicensing/Need for the Study

FERC requires that applicants assess how a relicensed project will affect the aesthetic quality of the area in which the project is located.

This study will address Issue Statement A1—concerns the effects of drawdown on visual quality; Issue Statement A2—concerns the effects of construction debris, garbage and invasive species on appearance of project lands; Issue Statement A3—concerns appropriate measures for aesthetic enhancement of project lands; and Issue Statement A4—concerns the impacts of future project features on aesthetic quality.

Associated specific Issues are described in Section 7.0.

4.0 Study Area

The Study Area includes Lake Oroville, the lands and waters within and adjacent to (1/4 mile) the FERC project boundary, and adjacent lands, facilities, and areas with a clear project nexus.

5.0 General Approach

Task 1—Existing Conditions Inventory

Task 1A—Pre-Field Aesthetic Inventory

Task 1A will involve collecting existing data related to aesthetic quality. Comprehensive plans such as the Plumas National Forest's Land and Resource Management Plan (LRMP) and the Bureau of Land Management's (BLM's) Redding Resource Management Plan will be consulted to obtain current scenery management data. Available GIS data from these sources will be copied to the work group's GIS system. In addition, policies and regulations related to aesthetic resources such as the Aesthetic Element of the Butte County General Plan and City of Oroville regulations will be reviewed.

Preliminary key observation points (KOPs) will be proposed after discussions with several work groups and agency staff. The KOPs will be chosen to represent various types of views that occur around Lake Oroville. Potential KOP locations include campgrounds, boat launching/mooring areas, residences, beaches, bridges, roads, trails and culturally important areas. Where appropriate, viewshed maps from selected KOPs will be generated using GIS prior to field reconnaissance. In addition, it may be appropriate to perform a GIS visibility analysis for project features, such as Lake Oroville Dam, transmission lines, and recreation areas, prior to the field reconnaissance.

Preliminary information regarding project-related noise and odor will also be gathered. Local agency and government representatives will be contacted to determine if there are any noise and odor impacts that will need to be addressed during field studies.

Task 1B—Field Reconnaissance

The field reconnaissance will begin by verifying the appropriateness of the KOPs selected for analysis. KOPs may be added or subtracted, if it is determined during field reconnaissance that a more representative sampling of the Study Area is necessary.

Views from the selected KOPs will be documented with photographs and videotapes, as will the visibility of project features. The visibility of project and non-project features that influence the visual quality of the Study Area will be catalogued. Areas of disturbed shoreline (with debris, exposed tree stumps, introduced plant species, heavy erosion, etc.) that may negatively impact the visual quality of the Study Area, but which could potentially be enhanced, will be mapped and catalogued.

If project-related noise and odor issues are identified in Task 1A, it may be appropriate to take associated measurements in the field. The results would also be analyzed as part of Task IB, however, this type of analysis is not typically conducted as part of FERC relicensing applications.

Task 2—Evaluation and Analysis

Task 2A—Analysis of Aesthetic Issues

Task 2A will begin with an analysis of how project and non-project features influence the aesthetic quality of the Study Area.

Attention will be given to whether such features are consistent with the visual management directives of management plans such as the United States Forest Service's (USFS's) Scenery Management System and the Butte County General Plan's Aesthetic Element. In addition, potential aesthetic impacts to the Study Area from future developments, plans, and policies will be discussed. Aesthetic issues and enhancement measures that were identified by the Land Use Work Group will also be evaluated and discussed under Task 2A.

Task 2B—Opportunities and Constraints

Task 2B will consider existing aesthetic conditions within the Study Area and will conduct an efficiency evaluation of potential enhancement measures identified from sources including the Land Use Work Group. This task will also examine the opportunities and constraints associated with improving the visual quality of the Study Area. Potential enhancement measures may include hydroseeding, removal of debris, screening facilities, and the use of non-reflective metal for parts of some facilities.

6.0 Results and Products/Deliverables

Results

This study will help meet FERC requirements by characterizing the existing aesthetic conditions within the Study Area. In addition, it will evaluate how project features and operations influence aesthetic quality and how effectively proposed enhancements might preserve or improve aesthetic quality.

Products and Deliverables

The following products will be developed as part of this study:

- Interim Aesthetic Resource Report
- Final Aesthetic Resource Report

These reports will contain an inventory and assessment which will characterize the existing aesthetic conditions and which will include:

- Photographs and videotapes taken from KOPs;
- Visibility analysis from selected KOPs (GIS-produced maps);
- A visibility analysis of project features (may be partially GIS-based); and
- Visual simulations for proposed project enhancements (as deemed appropriate by the Land Use Work Group).

In addition, the reports will discuss enhancement suggestions and evaluate their potential effectiveness.

7.0 Coordination and Implementation Strategy

Coordination with Other Resource Areas/Studies

Before this study begins, the research team will contact other work groups to determine where and when relevant data can be gathered and shared. This study will be coordinated with the study efforts of the Recreation and Socioeconomics; Environmental; and Engineering and Operations Work Groups.

Issues, Concerns, Comments Tracking and/or Regulatory Compliance

This study will address the following Issue Statements, and associated specific Issues:

Issue Statement A1—concerns the effects of drawdown on visual quality

- Issue AE5—bathtub ring
- Issue AE16—possibility of re-seeding perimeter of exposed shoreline

Issue Statement A2—concerns the effects of construction debris, garbage, and invasive species on appearance of project lands

- Issues AE1 through 5—debris collection
- Issue AE15—remove invasive, non-native plant species

Issue Statement A3—concerns appropriate measures for aesthetic enhancement of project lands

- Issue AE10—potential projects that could influence aesthetics of project
- Issue AE12—use native landscaping
- Issue AE13—landscaping a fish hatchery and nearby river area
- Issue AE16—re-seed face of Oroville Dam and perimeter of shoreline

Issue Statement A4—concerns the impacts of future project features on aesthetic quality

- Issue AE7—powerlines
- Issue AE8—visitor center
- Issue AE9—low impact signs
- Issue AE10—projects that could effect aesthetic quality of project
- Issue AE17—effects of noise

8.0 Study Schedule

Data collection and analysis: March 2002 through March 2003.
Data analysis and report writing: August 2002 through June 2003.
Interim Aesthetic Resource Report due: August 2003.
Final Aesthetic Resource Report due: December 2003.